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SUPPLEMENTAL DATA

Phylogenetic arrangement of fungal taxa tested by molecular probes for the presence of polyketide synthetase genes

Fungi tested for presence of PKS genes presented in a phylogenetic classification. Each species tested is followed by two numbers in parentheses; the first number is the number of ARSEF isolates of this taxon tested, and the second number is the number of isolates producing a PKS band for at least one of the primer pairs tested). Taxa listed in square brackets [I are anamorphic states placed according to their known or widely presumed holomorph connections. Taxa listed in **underlined boldface** were confirmed to yield at least one PKS-primed band.

Straminipila (= Chromista)

Oomycetes: Saprolegniales: Saprolegniaceae
Aphanomyces sp. (1/0)
Leptolegnia chapmanii (1/0)
Saprolegnia sp. (1/0)
Oomycetes: Lagenidiales: Lagenidiaceae
Lagenidium giganteum (1/0)

Chytridiomycota

Chytridiomycetes: Blastocladiales: Catenariaceae Catenaria sp. (1/0)

Zygomycota

Zygomycetes: Entomophthorales: Ancylistaceae

Conidiobolus adiaeretus (1/0); bangalorensis (1/0); brefeldianus (1/0);
coronatus (1/0); firmipilleus (1/0); obscurus (1/0); osmodes (1/0);
pseudoapiculatus (1/0); pumilus (1/0); rhysosporus (1/0);
thromboides (2/1+?^a)

Zygomycetes: Entomophthorales: Basidiobolaceae

Basidiobolus microsporus (1/0); ranarum (1/0)
Schizangiella serpentis [nom. prov. inedit.] (1/0)

Zygomycetes: Entomophthorales: Entomophthoraceae

Batkoa apiculata (1/1); **gigantea** (1/1); major (1/0)

Entomophaga aulicae (1/0); maimaiga (1/?)

Erynia ovispora (1/0)

Furia pieris (1/0)

Massospora cicadina (1/0)

Pandora blunckii (1/0); **delphacis** (1/1); kondoiensis (1/0)

Zoophthora lanceolata (1/1); **radicans** (2/1)

Zygomycetes: Entomophthorales: Neozygitaccae

Neozygites cf. floridana (1/1)

Zygomycetes: Kickxellales: Kickxellaceae

Coemansia sp. (1/0)

Zygomycetes: Mucorales: Mucoraceae

Sporodiniella umbelleta (1/0)

Zygomycetes: Mucorales: Synccephalastraceae

Synccephalastrum racemosum (1/0)

Ascomycota

Dothideomycetes: Dothideales: Mycosphaerellaceae

[Cladosporium cladosporioides (1/0); herbarum (1/0)]

Dothideomycetes: Dothideales: Tubeufiaceae

Podonectria coccicola (1/1)

Dothideomycetes: Pleosporales: Pleosporaceae

[Phoma cava (1/0)]

Eurotiomycetes: Ascosporellales: Ascosporellaceae

Ascosporella apis (1/0); **atra** (1/1); **major** (1/1); proliperda (1/?)

Eurotiomycetes: Eurotiales: Eurotiaceae

[**Aspergillus** flavus (1/1); **niger** (1/1)]

[**Penicillium** sp. (1/1)]

Eurotiomycetes: Onygenales: Onygenaceae

[**Myriodontium keratinophilum** (1/1)]

Leotiomycetes: Helotiales: Phacidiaceae

[**Acrodontium crateriforme** (1/1)]

Pezizomycetes: Leotiales: Orbiliaceae

[**Arthrobotrys dactyloides** (1/1); **oligospora** (1/1)]

[Dactylella oxyspora (1/0)]

[**Geniculifera paucispora** (1/1)] similar to *Arthrobotrys*

[Monacrosporiurn cionopagum (1/0)]

Pezizomycetes: Pezizales: Pyronernataceae

Ostracoderma sp. (1/0)

Saccharomycetes: Saccharomycetales

[**Candida** sp. (1/1)]

Sordariomycetes: Hypocreales: (Family uncertain)

[**Escovopsis aspergilloides** (1/1); **weberi** (1/1); **undet. sp.** (1/1)]

Sordariomycetes: Hypocreales: Clavicipitaceae^b

[**Aphanocladium album** (1/1)]

[**Akanthomyces gracilis** (1/1)]

[**Aschersonia goldiana** (1/1); **turbinata** (1/1)]

[**Beauveria amorpha** (1/1); bassiana (2/0); **brongniartii** (1/1);
caledonica (1/1); **velata** (1/1); vermiconia (1/0)]

Cordycepioideus bisporus (1/?)

[**Cordyceps heteropoda** (1/1); **militaris** (2/1+?); **ophioglossoides** (1/1);
roseostromata (1/1)]

[**Culicinomyces bisporalis** (1/1); clavisporus (1/0)]

[Drechmeria coniospora (2/0+?)]

[**Engyodontium aranearum** (1/1)]

[**Gibellula pulchra** (1/1); sp. indet. (1/0)]

[**Harposporium anguillulae** (1/1)]

[**Hirsutella citriformis** (1/1); **gigantea** (1/1); **rhossiliensis** (1/1);
thompsonii (3/3)]

[**Hymenostilbe verrucosum** (1/1)]

[**Metarhizium album** (1/1); **anisopliae var. anisopliae** (1/1);
anisopliae var. majus (1/1); flavoviride var. flavoviride (2/1);
flavoviride var. minus (1/1)]

[**Microhilum oncoperae** (1/1)]

[**Nomuraea anemonoides** (1/1); **atypicola** (1/1); **rileyi** (3/2+?)]

Sordariomycetes: Hypocreales: Clavicipitaceae (continued)

[**Paecilomyces amoenoroseus** (1/1); **farinosus** (1/0);
fumosoroseus (2/2); **guaensis** (sp. nov. inedit) (1/0); **javacinus** (1/1);
lilacinus (1/1); **reniformis** (1/0); **tenuipes** (1/0); **viridis** (1/0)]
[**Polycephalomyces formosus** (1/1)]
[**Pseudogibellula formicarum** (1/1)]
[**Sorosporella uvella** (1/1)]
[**Tolypocladium cylindrosporum** (1/1); **extinguens** (1/1);
inflatum (1/1); **parasiticum** (1/1)]
Torrubiella homopterorum (1/1); **ratticaudata** (1/1)
[**Verticillium balanoides** (1/1); **chlamydosporium** (1/1);
coccosporum (1/1); **fusisporum** (1/1); **indicum** (1/0); **lecanii** (2/2);
psalliotae (1/1)]

Sordariomycetes: Hypocreales: Hypocreaceae

[**Acremonium berkeleyanum** (1/1)]
[**Fusarium coccophilum** (1/1); **nygamai** (1/1); **polyphalidicum**(1/1);
unident. spp. (4/3)]
[**Gliocladium roseum** (1/0)]
[**Stilbella buquetti** (1/1)]
[**Trichothecium roseum** (2/1)]

Sordariomycetes: Microascales: Microascaceae

[**Scopulariopsis sp.** (1/1)]

Sordariomycetes: Ophiostomatales: Ophiostomataceae

[**Sporothrix insectorum** (1/1)]

Sordariomycetes: Sordariales: Chaetomiaceae

[**Humicola sp** (1/0)]

Basidiomycota

Ustilaginomycetes: Ustilaginales: Tiletiaceae

[**Tilletiopsis sp.** (1/1)]

Hymenomycetes: Agaricales: Tricholomataceae

[**Nematoctonus concurrens** (1/0); sp. indet. (1/0)]

Deuteromycota: Hyphomycetes^c

- [**Acrodontium crateriforme** (1/1)]
- [**Beniowskia clathrotrichum** (1/0)]
- [**Calcarisporium ovalisporum** (1/1)]
- [**Phialophora malorum** (1/1)]
- [**Stachybotrys sp.** (1/1)]
- [**Tilachlidium sp.** (1/1)]
- [**Tritirachium isariae** (1/1)]

^a “?” indicates isolate from which no DNA was successfully extracted.

^b Includes anamorphic (conidial) states known or suspected to be linked to sexual states in the Clavicipitaceae (see R.A. Humber, 2000. Fungal pathogens and parasites of insects. In: *Applied Microbial Systematics* (F. Priest and M. Goodfellow, eds.), pp 199-227. Dordrecht: Kluwer Acad. Publ..

^c Taxa listed here are conidial states whose teleomorphic (sexual) connections remain either unknown or too confused or controversial to be included in any of the above taxa despite the reasonable assumption that all of them have ascomycetous affinities.